A Comparative Evaluation of the Aerosolization Performances of Marketed Fluticasone Multi-Unit and Single-Unit Dry Powder Inhalers (DPIs): The Effects of Product Use Life, Suboptimal Airflow and a Hot/Humid Environment

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CONCLUSION

Both the DPIs showed reproducible (equivalent CV) and robust (non-significant differences) DDs and FPDs along the product use life. Flutaxa® delivered double the FPD with less variability than Flixotide® despite a slightly lower DD. Moreover, FPDs from Flutaxa®, unlike Flixotide®, were robust at suboptimal airflows typical of those generated by asthmatic and COPD patients, and showed only a slight decrease, contrary to very low FPD due to almost no powder emission, when preloaded doses were exposed to a hot/humid environment.